

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

GREATBATCH LTD.,

Plaintiff,

v.

AVX CORPORATION and
AVX FILTERS CORPORATION,

Defendants.

C.A. No. 13-723-LPS

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MEMORANDUM OPINION

March 30, 2018
Wilmington, Delaware



STARK, U.S. District Judge:

On April 25, 2013, Greatbatch filed this patent infringement action. To date it has involved (among other things) two jury trials on the validity of four patents – the '095 patent, the '627 patent, the '715 patent, and the '779 patent – and on infringement of those patents by AVX's Frontier, NG3, and Ingenio filtered feedthroughs ("FFTs"), some of which come in multiple versions.¹

On October 3, 2017, the Court held a bench trial on AVX's equitable defense of estoppel, by which AVX seeks to bar Greatbatch from recovering damages for infringement of U.S. Patent Nos. 5,908,627 and 5,333,095. (*See* D.I. 1090 (hereinafter, "Bench Tr."))

Pending before the Court is AVX's request that Greatbatch be barred from recovery for infringement of the '627 and '095 patents, or at a minimum, barred from recovery on Greatbatch's price erosion theory due to estoppel. (D.I. 1084).

Briefing was completed on November 21, 2017 (*see* D.I. 1084, 1098, 1103), and the Court heard oral argument on January 18, 2018 (*see* D.I. ___) ("Tr."). Having carefully considered the record and the parties' arguments, and for the reasons discussed below, the Court will deny AVX's request to bar Greatbatch. Pursuant to Federal Rule of Civil Procedure 52(a), and after having considered the entire record in this case and the applicable law, the Court concludes that AVX has failed to prove its affirmative defense of equitable estoppel.

The Court's findings of fact and conclusions of law are set forth in detail below.

¹The 2016 jury trial took place January 11-26, 2016. (D.I. 689, 690, 691, 693, 694, 695, 696, 697, 698, 699, 711 (hereinafter, "2016 Tr.")) The 2017 jury trial took place August 7-11, 2017. (D.I. 1060, 1061, 1062, 1063, 1064 (hereinafter, "2017 Tr."))

FINDINGS OF FACT²

A. The Parties , Patents, and Products

1. Plaintiff Greatbatch Ltd. (“Greatbatch”) has its principal place of business in Clarence, New York. (Frustaci 2016 Tr. at 259)³

2. Defendant AVX Corporation has its principal place of business in Greenville, South Carolina. (Lawing 2016 Tr. at 1276) Defendant AVX Filters Corporation, a subsidiary of AVX Corporation, is located in Sun Valley, California. (*See id.* at 1280, 1282, 1292)

3. United States Patent No. 5,905,627 (the “’627 Patent”), entitled “Internally Grounded Feedthrough Filter Capacitor,” was issued by the United States Patent & Trademark Office to named inventors Richard L. Brendel (“Brendel”) and Robert A. Stevenson (“Stevenson”) on May 18, 1999. (PTX-1)

4. United States Patent No. 5,333,095 (the “’095 Patent”), entitled “Feedthrough Filter Capacitor Assembly for Human Implant,” was issued by the United States Patent & Trademark Office to named inventors Robert A. Stevenson and Donald N. Pruett on July 26, 1994. (PTX-2)

5. The accused products are filtered feedthroughs (“FFTs”) made for Boston Scientific Corporation (“BSC”) for the Frontier, Ingenio and NG3 programs. Frontier was a

²As AVX has failed to prove either (1) misleading conduct by Greatbatch that led AVX to reasonably infer Greatbatch did not intend to enforce its patent rights or (2) reliance on such conduct by AVX, the Court makes no factual findings as to the whether AVX would be materially prejudiced if Greatbatch was allowed to proceed with its claim.

³Citations to the trial transcripts are in the format: “[Witness name] Bench Tr. at [page number],” “[Witness name] 2016 Tr. at [page number],” or “[Witness name] 2017 Tr. at [page number].”

feedthrough for use in a defibrillator. (*See* Panlener 2016 Tr. at 511) Ingenio was a low-voltage filtered feedthrough for use in a pacemaker. (*See id.* at 1412) NG3 was a feedthrough filter capacitor for a defibrillator. (*See id.*) NG3 had the same style of filtering array as Frontier, but with two more pins. (*See id.* at 1409)

B. The Parties' Prior Correspondence

6. Prior to the commencement of this litigation on April 25, 2013, for nearly a decade Greatbatch and AVX had engaged in correspondence regarding Greatbatch's assertions of infringement. (*See* DTX-2008, DTX-2013, DTX-2015, DTX-2052, DTX-2055, DTX-2058, DTX-2060, DTX-2062, DTX-2067, DTX-2068)

7. On December 5, 1997, Greatbatch's predecessor (Maxwell Technologies, Inc. (hereinafter, "Maxwell")) sent a letter advising AVX that a patent application unrelated to the patents in suit had been allowed by the U.S. Patent and Trademark Office. (DTX-2008; Slavitt Bench Tr. at 16) AVX concedes this was simply a notice letter. (*See* Slavitt Bench Tr. at 16)

8. Over three years later, in January 2001, Maxwell sent AVX a letter advising it about: (1) the '627 patent, which covered an internally grounded filter; and (2) U.S. Pat. No. 5,978,204 (the "'204 patent"), which is not at issue in this litigation. (*See* DTX-2013; Slavitt Bench Tr. at 16-17) The letter requested AVX cease manufacture or explain why AVX believed its products did not fall within the scope of the claims. (DTX-2013) On January 17, 2001, AVX's outside counsel, Dority & Manning, advised Maxwell that its January 9 letter had been referred to it for a response. (DTX-2015; Slavitt Bench Tr. at 17)

9. Upon receipt of the January 2001 letter, AVX reviewed the contentions with respect to a product that AVX was working on at that time for Guidant (a predecessor of BSC)

and, after consultation with counsel, determined there was no infringement. (*See* PTX-4038; Slavitt Bench Tr. at 17, 44-45)

10. There was no further correspondence between Greatbatch and AVX until 2004.

11. On August 18, 2004, Greatbatch wrote AVX, noting that it had previously informed AVX regarding infringement concerns relating to the '204 patent and that the patent had undergone reexamination. (DTX-2052) The letter also raised a potential concern regarding an EMI filter AVX sold to St. Jude Medical for its Integrity and Victory product lines, relating to both the '204 patent and U.S. Patent No. 6,765,779 (the "'779 patent"). (*Id.*)

12. Greatbatch's August 18, 2004 letter also provided notice to AVX that it owned various other patents related to FFT assemblies, including the '095 patent and the '627 patent, among others. (DTX-2052) The letter did not accuse any AVX product of infringing those patents, but requested AVX "confirm whether or not [its] activities infringe [the '204 patent's] claims as well as those in [the '779 patent], among the others listed above." (*Id.*)

13. On September 16, 2004, AVX responded, explaining that, according to AVX, its products made for St. Jude did not infringe the '204 or the '779 patent, as AVX believed both patents were invalid due to prior sales. (DTX-2055) The letter also informed Greatbatch that AVX had, in 2001, "diligently studied the issues with patent counsel, and determined that there was no infringement of the '627 patent" (*Id.*) The letter did not address the '095 patent or allege that the '627 patent was invalid. (*Id.*)

14. Greatbatch's responding letter, dated October 18, 2004, discussed the '204 and '779 patents, but did not mention either the '095 or the '627 patent. (*See* DTX-2058)

15. The parties' correspondence continued through 2004 and 2005 (*see, e.g.*, DTX-

2060; DTX-2062; DTX-2067; DTX-2068; Slavitt Bench Tr. at 20), but the last letter regarding alleged infringement of the '627 patent was in 2004, over four years before AVX sold a Frontier FFT with an internal ground. (*See* DTX-2055)

16. In 2008, the parties exchanged letters regarding U.S. Patent No. 5,973,906. (DTX-2092; DTX-2097) These letters did not address infringement or validity of the '095 or '627 patents. (*See id.*)

17. In its letter addressing the '906 patent on November 10, 2008, AVX also suggested that there was “an emerging pattern of the assertion of patent rights without a good faith basis to do so . . . [and] such action can constitute an unfair or deceptive trade practice.” (DTX-2097; *see* Scalise Bench Tr. at 147) Greatbatch did not reply to this letter. (*See* Slavitt 2017 Bench Tr. at 23; Scalise 2017 Bench Tr. at 147)

C. The Parties and BSC

18. Greatbatch entered into a Supply Agreement with BSC in 2007. (PTX-82)

19. In July of 2007, BSC approached AVX regarding work on developing new filter designs, and thereafter, AVX began design and development of the Frontier FFT. (*See* Panlener 2016 Tr. at 1388-89, 1391-92; DTX-147)

20. In September 2007, BSC told AVX that AVX would be a second source to Greatbatch for FFTs. (Slavitt Bench Tr. at 28)

21. By October of 2007, Greatbatch knew that BSC was in discussion with other companies about a solution for Frontier. (*See* DTX-742) Greatbatch identified AVX and another company, Novacap, as two competitors (*see* Schulte Bench Tr. at 187), and noted that AVX was the “most legitimate competitor” (Sciara Bench Tr. at 166-67).

22. On October 26, 2009, Greatbatch met with BSC and was informed that BSC had qualified its second source for Frontier filtering and that Greatbatch had quoted a higher price for Ingenio than its competitor. (DTX-997)

23. On December 22, 2009, BSC told Greatbatch in a meeting that it intended to reduce Greatbatch's Frontier FFT business in 2010 and provided formal notice of second sourcing, as BSC believed its agreement with Greatbatch required. (*See* DTX-999)

24. At the December 22, 2009 meeting, BSC told Greatbatch that the second source supplier "developed a filtering process that is much simpler and lower cost" than Greatbatch and that until Greatbatch found "a revolutionary way to filter or make the UFT," there was "no differentiating technology" and Greatbatch would compete with the second source "on cost." (*Id.*) BSC also explained that it "did a very thorough analysis on the 2nd source" and was "100% confident there is no infringement." (*Id.*)

25. In 2010, Greatbatch was negotiating a new Supply Agreement with BSC. (Beckman 2016 Tr. at 950)

D. AVX Product Development

26. It was customary in the industry for parties to keep their product development or collaboration secret and not public. (*See* Heidelberg Bench Tr. at 191-92; Boyum 2016 Tr. at 620-621) AVX executed a non-disclosure agreement with BSC in about September 2007. (*See* PTX-4014; Slavitt Bench Tr. at 40-41; Heidelberg Bench Tr. at 188-89)

27. To meet BSC's requirements for Frontier, AVX had to qualify the product internally first and then send it to BSC. (Lawing Bench Tr. at 63) In order to produce the FFTs, AVX made "significant" capital investments and incurred costs. (*See* Lawing Bench Tr. at 64;

DTX-2124; Rios Bench Tr. at 54-55; DTX-2090) These investments in capital were made before production-grade parts were manufactured. (Rios Bench Tr. at 56)

28. As of September 2007, AVX was still early in development and did not yet have a design set for the Frontier product. (Panlener 2016 Tr. at 1393-94; PTX-4014)

29. As of October 2007, AVX was only asked to quote the array or capacitors, and was not asked to quote or make an FFT. (*See* PTX-4017; Lawing Bench Tr. at 84-85)

30. As of November 2007, AVX and BSC had not exchanged designs for the Frontier product. (*See* Panlener 2016 Tr. at 1397)

31. The only designs being made by AVX for BSC in the late 2007 through early 2008 time period were: Econo with chip caps, printed circuit boards, or a skirted feedthrough with an external ground capacitor. (Lawing Bench Tr. at 83-85) None of these designs, however, are internally grounded FFT assemblies found in the accused Frontier product. (*See id.*; PTX-714; PTX-403)

32. AVX did not begin to experiment with an internally grounded FFT for the Frontier product until June 2008, when it determined that its design had problems that the internal ground solved. (PTX-129) It also commenced its urgent search for prior art to try and invalidate the '627 patent because AVX was "in somewhat of a bind on a current development for [BSC]" and "[a]n internal ground design solves our problems." (*Id.*) AVX explained that "[o]ur competitor Greatbatch has 2 patents on this. We have not been very concerned about this in the past but now our 'work-around' has problems." (*Id.*; *see also* Panlener 2016 Tr. at 1447-48)

33. AVX began developing the Ingenio FFT as part of a "Top Secret" project in

January 2009. (PTX-176; Heidelberg Bench Tr. at 191-92; Boyum 2016 Tr. at 620-621)

34. Because AVX's development of FFTs was top secret and operating under an NDA, Greatbatch had no reason to know the exact design AVX was using for FFTs at this time.

35. On January 15, 2009, AVX received approval from BSC to manufacture around 100-150 Ingenio prototypes. (DTX-120) BSC was indifferent between the use of an external or internal ground on this part. (*See* PTX-4067)

36. On December 21, 2009, BSC gave AVX the green light to move from pre-production to production Frontier parts. (*See* PTX-268)

37. The first sale of the Ingenio product took place on August 27, 2009. (Nonkes Bench Tr. at 182 (reading into transcript uncontested facts (D.I. 1058 Ex. 1); DTX-3045)

38. The first sale of the NG3 product line took place on February 2, 2011. (Nonkes Bench Tr. at 183 (reading into transcript uncontested facts (D.I. 1058 Ex. 1); DTX-3045)

39. AVX did not sell production NG3 FFTs to BSC until May 2013. (*See* DTX-3045) Sales of NG3 FFTs prior to that time were qualification units.

E. AVX's Opinions of Counsel and Business Judgment

40. AVX obtained an opinion from its outside counsel, Dority & Manning, on April 24, 1998, regarding certain AVX designs and the '095 patent. (PTX-4000; *see* Moose Bench Tr. at 193-94; Panlener 2016 Tr. at 1435-36) AVX's counsel concluded that the current designs did not infringe the '095 patent. (PTX-4000; *see* Moose Bench Tr. at 193-94; Panlener 2016 Tr. at 1435-36)

41. The '627 patent issued in May of 1999. (PTX-1) Soon thereafter, AVX began investigating invalidity of the '627 patent. (PTX-4120; Panlener Bench Tr. at 196, 198)

42. Dority & Manning provided AVX both an invalidity and non-infringement opinion regarding the '627 patent to AVX in 2001. (PTX-4038; Slavitt Bench Tr. at 17, 34, 42-44) AVX never informed Greatbatch in 2001, or anytime thereafter, that it had obtained an invalidity opinion or that it believed the '627 patent was invalid. (Slavitt Bench Tr. at 44-45)

43. On May 7, 2008, Dority & Manning provided a non-infringement opinion regarding the '095 patent that AVX claims covers the accused Ingenio FFT. (*See* PTX-4026; PTX-4038; Moose Bench Tr. at 193-94; Slavitt Bench Tr. at 25-27, 29; Panlener 2016 Tr. at 1439) AVX relied on that opinion in deciding to proceed with manufacturing the Ingenio FFT for BSC. (*See* Slavitt Bench Tr. at 29; Panlener 2016 Tr. at 1526; Lawing 2016 Tr. at 1302-03)

44. On June 26, 2008, Rick Panlener emailed Dorothy David, Senior Manager, Credit and Collections of AVX, stating that he was in “desperate need” to generate proof of prior art “for a patent invalidity effort.” (PTX-136) Mr. Panlener continued, “[o]ur need is for a filter design for Boston Scientifics’ Frontier defibrillator. We are on a fast track to develop and qualify this part, and our design now is at point where we need to employ the internally grounded capacitor.” (*Id.*)

45. AVX revisited the prior opinions of counsel it had commissioned regarding the '627 patent, and ordered counsel to conduct another invalidity analysis. (Slavitt Bench Tr. at 26) AVX also searched internal sales records for products that it hoped were prior art to the '627 patent in June 2008. (Panlener 2016 Tr. at 1425-26; PTX-136)

46. On August 6, 2008, Dority & Manning provided a supplemental invalidity opinion regarding the '627 patent to AVX. (PTX-4047; Panlener 2016 Tr. at 1426-27; Slavitt Bench Tr. at 26-27) On November 10, 2008, Dority & Manning informed Mr. Panlener, Mr. Slavitt, and

Mr. Eggerding that they had shared the invalidity opinion with BSC's outside counsel.

(PTX-4063; Slavitt Bench Tr. at 48-49)

47. AVX relied on the invalidity opinion of the '627 patent provided by its outside counsel to move forward with making the internally grounded design for the Frontier product. (Slavitt Bench Tr. at 29, 44-46)

48. AVX did not believe that it was infringing the '627 or the '095 patent and "that belief stemmed from the fact that [AVX] had advice from [its] attorneys that [its] designs did not infringe" (Panlener 2016 Tr. at 1526)

49. AVX believed it had a clear intellectual property path to make the FFTs for the Frontier, Ingenio, and NG3 products. (Lawing 2016 Tr. at 1302-03)

50. AVX made business decisions to move forward with the Frontier, Ingenio, and NG3 products. (Lawing 2016 Tr. at 1302-03; Slavitt Bench Tr. at 25-26) AVX projected \$35 million in revenue from the Frontier product alone. (Lawing Bench Tr. at 87-88; PTX-265)

51. AVX's medical business was down 50% and the deal with BSC was part of a strategy to grow back its medical business. (PTX-102; Lawing 2016 Tr. at 1314-15, 1325-29; Panlener 2016 Tr. at 1527)

52. Despite having obtained an invalidity opinion regarding the '627 patent in November 2008 and having decided to proceed with an internally grounded version of Frontier, AVX never informed Greatbatch of its design and did not inform Greatbatch it believed the '627 patent was invalid. (*See* Slavitt Bench Tr. at 48-49) Although AVX sent Greatbatch a letter dated November 10, 2008 regarding the '906 patent – the same day AVX shared its invalidity opinion with BSC – AVX omitted any reference to the '627 patent. (*See id.*; PTX-4063)

53. No one at AVX ever spoke to anyone at Greatbatch about its investigation regarding infringement of the '627 or '095 patents by AVX. (Slavitt Bench Tr. at 50-51)

54. AVX could not have relied on internal Greatbatch documents as a basis for AVX's decision to go forward with manufacturing the Frontier, NG3, and Ingenio products. (Lawing Bench Tr. at 97-98)

F. Greatbatch's Knowledge of AVX Infringing Parts

55. AVX never told BSC that it was relying on Greatbatch's silence regarding infringement of the '095 or '627 patents. (*See* Slavitt Bench Tr. at 46-48)

56. AVX has not produced any documents in this litigation stating that it relied on Greatbatch's silence in deciding to manufacture the Frontier, Ingenio, or NG3 FFTs.

57. The best way to analyze an FFT design is to conduct destructive physical testing on the device. (*See* Sciara Bench Tr. at 164) AVX's products are small internal components of pacemakers or implantable cardio defibrillators ("ICDs") implanted in a human body and cannot be purchased on the open market. (Frustaci 2016 Tr. at 269-71) Greatbatch attempted to obtain AVX parts by obtaining explants from funeral homes, but was unsuccessful. (*See id.*; Seitz Bench Tr. at 132)

58. Greatbatch did not have an AVX Frontier, Ingenio, or NG3 unit in its possession until after this litigation commenced. (*See* Seitz Bench Tr. at 132)

59. Even though BSC had approved AVX as the second source for its filtering needs, there was no evidence of infringement until 2010. (*See* Frustaci Bench Tr. at 113-15; Seitz Bench Tr. at 132-33, 138-39; Sciara Bench Tr. at 164; Marzano Bench Tr. at 174)

60. In October of 2007, Janeth Gomez, a long-time associate of Greatbatch employee

and '627 patent inventor Rick Brendel, visited AVX's factory and later informed Brendel that she "SAW Guidant parts being assembled on [AVX's] production line." (DTX 742; Brendel Bench Tr. at 102-03) Guidant was part of BSC. (Brendel Bench Tr. at 102) By December 12, 2007, Brendel had informed others within Greatbatch of this information. (DTX 742; Brendel Bench Tr. at 101-02; Marzano Bench Tr. at 169-70)

61. As the only designs AVX was making BSC in the late 2007 through early 2008 period were not internally grounded FFT assemblies (*see* Lawing Bench Tr. at 83-85; PTX-714; PTX-403), and as AVX did not begin experimenting with internally grounded FFTs until June 2008 (PTX-129), the Guidant products Mr. Brendel's colleague saw on the AVX production floor in 2007 could not have been the accused internally grounded Frontier FFT.

62. In August 2008, Greatbatch believed that AVX was "the only other competitor making filtered feedthroughs for medical devices to Boston Scientific." (Marzano Bench Tr. at 168) By August 22, 2008, Greatbatch knew that the grounding in the AVX Frontier FFT was the same as the grounding in the Greatbatch Frontier FFT, i.e., "they're using an internal ground part." (Brendel Bench Tr. at 105-06; *see* DTX-2091)

63. By March 3, 2009, Greatbatch internal correspondence showed it was investigating an "analysis of AVX infringement of the '627 patent." (DTX-2194)

64. By April 14, 2009, BSC told Greatbatch that AVX was quoting the "exact same" Frontier design as Greatbatch. (DTX-2105; Schulte 2017 Bench Tr. at 155-56)

65. Following a meeting with BSC on May 21, 2010, Greatbatch's sales personnel believed AVX was the second source. (DTX-1000)

66. In July of 2010, Greatbatch received the BSC 402150 UFT drawing for Frontier

and believed it to be intended for AVX. (*See* Seitz Bench Tr. at 126; Scalise Bench Tr. at 150; Sciara Bench Tr. at 163-64; DTX-2138)

67. By no later than July 16, 2010, Greatbatch received a report that a former Greatbatch employee, Tian Tan, who had gone to work for AVX, had reported to one of his Greatbatch colleagues that AVX was manufacturing Frontier and Ingenio. (*See* Brendel Bench Tr. at 107-08; Scalise Bench Tr. at 148-49; DTX-2139; DTX-2141)

68. On October 6, 2010, Greatbatch received drawings from BSC that Greatbatch believed indicated that the NG3 product was being manufactured by AVX. (*See* Frustaci Bench Tr. at 114-15; DTX-2148)

69. In November 2010, Greatbatch noted that AVX's use of an internal ground was "consistent with Tian's comments (after he was laid off from GB and went to work with AVX) saying that AVX was violating GB patents (surface mount and internal ground)." (DTX-2157)

70. In August 2012, Greatbatch Vice President of Research and Development Dominick Frustaci received an email from BSC that Frustaci believed may have been intended for a different supplier, "AVX possibly." (DTX-2175) Frustaci forwarded the email to Greatbatch Executive Director of Strategic Marketing and Product Development Sean Sciara. (*Id.*) In response to the email, Sciara confirmed "BSC does have a second source for filtering (it's AVX)." (*Id.*) As of the time Sciara received this email, Greatbatch had known AVX was the second source for at least two years. (*See* Sciara Bench Tr. at 165)

71. While Greatbatch was aware that AVX was the second source as of 2010, BSC told Greatbatch that the second source had developed a "much simpler and lower cost" FFT than what Greatbatch was charging and that did not infringe. (*See* DTX-999; PTX-359)

72. In December 2012, Greatbatch received a purchase order from BSC evidencing that it had purchased FFTs from AVX. (PTX-4107; Alger Bench Tr. at 120-21; Kinney Bench Tr. at 185-86) This purchase order listed the identical part number found on the 2010 drawing, demonstrating that AVX had begun selling a potentially-infringing design.

73. Greatbatch filed suit against AVX on April 25, 2013, for alleged infringement of the '627 patent. (D.I. 1) On February 7, 2014, Greatbatch amended its complaint to allege infringement of, *inter alia*, the '095 patent. (D.I. 57)

LEGAL STANDARDS

To establish equitable estoppel, an alleged infringer must show by a preponderance of the evidence that: (1) the patentee, through misleading words, conduct, or silence, led the alleged infringer to reasonably infer that the patentee did not intend to enforce its patent rights; (2) the alleged infringer relied on the patentee's conduct; and (3) due to its reliance, the alleged infringer will be materially prejudiced if the patentee is allowed to proceed with its claim. *See A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, 960 F.2d 1020, 1041, 1046 (Fed. Cir. 1992) (en banc).

DISCUSSION

AVX asks the Court to bar Greatbatch from recovery for infringement of the '627 and '095 patents, or at a minimum, from recovery based on Greatbatch's price erosion theory, "which relies on reduced pricing that Greatbatch accepted while electing not to pursue its own claims of infringement." (D.I. 1084 at 1) Specifically, AVX contends that Greatbatch was misleadingly silent as to any potential infringement of the '627 and '095 patents and, due to the parties' prior course of dealing for over a decade, AVX relied on that silence to its detriment. (*Id.* at 3-4, 9-11)

There is no dispute that from December 1997 to November 2008, Greatbatch or its

predecessor sent AVX eight letters pertaining to various patents and products. There is also no dispute that none of those letters referred to the specific combination of patents and accused products at issue here. The parties dispute the effect of those letters – specifically, whether those letters and each parties’ conduct in corresponding with the other created a course of dealing such that Greatbatch owed AVX a duty to alert it upon forming a belief that AVX’s products infringed Greatbatch’s patents. The Court finds that no such duty was created. Even if it were, the preponderance of the evidence does not support a finding that Greatbatch was aware of infringement prior to 2012.

First, not only were the letters exchanged over a lengthy period (11 years), it is also true here that none of them related to the Ingenio, Frontier, or NG3, the only accused products in this litigation. *See B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1425 (Fed. Cir. 1997) (equitable estoppel not supported by evidence of patentee’s relations with alleged infringer related to different products than those at suit). Even if such a “course of dealing” relating to other patents and products could have created a duty on the part of Greatbatch, the evidence shows that: (1) Greatbatch was not aware of infringement until 2012; and (2) AVX intended to keep the accused products secret from Greatbatch.

While Greatbatch was aware of a second source to BSC in 2009, it was unsure who that second source was until 2010, and believed that the second source’s technology was different from its own. (*See* Sciara Bench Tr. at 166-67; Schulte Bench Tr. at 187; DTX-999; DTX-1000) Upon discovering AVX was the second source, two years elapsed before Greatbatch’s suspicions of AVX’s products were definitive enough to pursue infringement allegations. (*See* Frustaci Bench Tr. at 113-15; PTX-4107; Alger Bench Tr. at 120-21; Kinney Bench Tr. at 185-86)

Moreover, Greatbatch did not have access to AVX's FFT designs until 2012, and prior to that date, with indications that AVX could be infringing but without samples, Greatbatch could not definitively determine whether AVX's FFT designs were infringing. (*See* Frustaci Bench Tr. at 114-15, 132) AVX itself warned Greatbatch in 2008 of its concern that Greatbatch was engaging in "an emerging pattern of the assertion of patent rights without a good faith basis to do so [and that] . . . such action can constitute an unfair or deceptive trade practice." (Slavitt Bench Tr. at 22-23; DTX-2097) AVX told Greatbatch it was "clos[ing] its file with respect to this matter" but was "open to communications relating to legitimate questions concerning Greatbatch or AVX intellectual property." (DTX-2097) In light of this letter, it was reasonable for Greatbatch to ensure it was dealing with actual infringement prior to filing suit (and prior to considering contacting AVX yet again), and not rely merely on indications that such infringement was possible.

In addition, equitable estoppel is premised on the accused infringer's belief, here AVX's belief. *See Andover Healthcare, Inc. v. 3M Co.*, 2016 WL 6246360, at *4 (D. Del. Oct. 18, 2016) ("Unlike laches, which requires an examination of whether a patentee's conduct was reasonable or excusable, estoppel focuses on the effect of the patentee's conduct on the alleged infringer."); *see id.* ("[M]isleading conduct . . . focuses on the alleged infringer's perception of events."). AVX intended to keep its projects relating to the accused products secret. (*See* Heidelberg Bench Tr. at 191-92 (AVX's sales agent Denny Heidelberg testifying that "[i]n the medical implantable field, everything – every project they work on is secret" and that the feedthrough filter was a "top-secret" project with BSC)) There is no evidence that AVX believed that, despite AVX's efforts to preserve secrecy, that somehow Greatbatch found out about AVX's infringing

activities, and that AVX then relied on Greatbatch's failure to accuse AVX of infringing (despite overcoming AVX's secrecy efforts). Therefore, even if Greatbatch's conduct was misleading (which the Court does not find it was), AVX failed to prove that it relied on that conduct. Instead, the record shows that AVX believed Greatbatch was not aware of its allegedly infringing products for some extended period of time.

AVX also does not dispute that: (1) it made capital investments prior to manufacture and production of the accused parts, and therefore, prior to Greatbatch being aware of the parts; and (2) it relied on opinions of counsel that the '627 and '095 patents were invalid and that AVX's designs were non-infringing, further supporting a finding that AVX did not undertake the actions it chose to take in reliance on **Greatbatch's** silence. (See Slavitt Bench Tr. at 25-29, 34, 42-49; Moose Bench Tr. at 193-98; *see also Wafer Shave Inc. v. Gillette Co.*, 857 F. Supp. 112, 123 (D. Mass. 1993), *aff'd*, 26 F.3d 140 (Fed Cir. 1994) ("The fact that Gillette may have relied in part on this advice does not negate the fact that it **also relied on** the patentee's apparent abandonment of [its] infringement claim.") (emphasis added))

Accordingly, the preponderance of the evidence does not support AVX's equitable estoppel defense, in whole or in part. AVX's request to bar Greatbatch will be denied.⁴

CONCLUSION

For the reasons stated above, the Court will deny AVX's request to bar Greatbatch from enforcing the '627 and '095 patents. (D.I. 1084) An appropriate Order follows.

⁴The Court agrees with Greatbatch that its ruling on AVX's equitable estoppel defense need not be tied up with the Court's decision on a new trial on damages. In any event, by separate Memorandum Opinion and Order today, the Court has decided that it will hold a new trial on damages.